Claims:

1. 1. A transposable element comprising at least four inverted repeats, forming at least two pairs of opposing pairs of inverted repeats, the element comprising DNA for insertion into a host genome, the DNA being located between two pairs of opposing repeats such that excision by a transposase or transposases of said pairs, *in situ*, is effective to be able to leave said DNA integrated into the host genome, without the presence of flanking transposon-derived repeats derived from said transposable element.

2. A transposable element according to claim 1, wherein the DNA for insertion into a host genome is a gene for expression in the host.

3. A transposable element according to claim 1, wherein the DNA for insertion into a host genome is a promoter or enhancer sequence.

4. A transposable element according to claim 1, wherein the DNA for insertion into a host genome is a stop codon or is sufficient to bring about an in frame stop codon.

5. A transposable element according to any preceding claim, wherein the inverted repeats are piggyBac repeats.

6. A transposable element according to any preceding claim, having four inverted repeats.

7. A transposable element according to any preceding claim, wherein the inverted repeats are homologous.

8. A transposable element according to any of claims 1-6, wherein pairs of homologous inverted repeats are heterologous to other pairs of inverted repeats.

9. A transposable element according to any preceding claim, wherein one or more of the inverted repeats is a minimal non-terminal repeat.

10. A transposable element according to any preceding claim, comprising at least one genetic marker.

11. A transposable element according to any preceding claim, wherein the element comprises two external opposed inverted repeats, one on each side of an inversion cassette, the cassette comprising;

the DNA for insertion into a host genome, two inverted cassette repeats and two inversion sites, the DNA for insertion into a host genome being flanked on either side by one of the inverted cassette repeats, each inverted cassette repeat being further flanked by an inversion site;

the cassette being capable of inversion within the transposed element *in situ* in the presence of a recombinase, such that following inversion, the two inverted cassette repeats flanking the DNA for insertion into a host genome each separately form a further pair of opposing inverted repeats with one of the external inverted repeats, the further pairs of opposing repeats being excisable by a transposase *in situ* to leave said DNA without flanking transposon-derived repeats in the host genome.

12. A transposable element according to claim 11, wherein the inversion sites are recognised by inversion-inducing recombinase.

13. A transposable element according to claim 12, wherein the inversion sites are recognised by the Flp/FRT or Cre/lox inversion systems.

14. A transposable element comprising at least three inverted repeats, at least one of which is inverted in relation to the others, wherein at least one non-terminal repeat is a minimal repeat.

15. A transposable element according to claim 14, comprising DNA for insertion into a host genome located between the minimal repeat and a repeat having the same orientation as the minimal repeat.

16. A transposable element according to claim 14 or 17, wherein the DNA for insertion into a host genome is preferably flanked by two pairs of opposing repeats excisable by a transposase *in situ* to leave said DNA without flanking repeats in the host genome.

17. A transposable element according to claim 16, wherein each of the repeats bounding the DNA for insertion into a host genome is a minimal repeat.

18. A transposable element according to any of claims 14-17, wherein at least one repeat distal to the DNA for insertion into a host genome in relation to a minimal repeat in the same orientation has an internal deletion or is otherwise compromised over up to 50% of its length.

19. A transposable element according to any of claims 10 and 14-18, comprising at least one genetic marker associated with an identifiable step in the transposition/excision process.

20. A transposable element according to claim 19, wherein the marker is associated with the DNA for insertion into a host genome.

21. A transposable element according to any of claims 14-19, comprising as a terminal repeat, a repeat having a deletion of no more than 50%, or mutation or inversion that disables no more than 50% of the repeat.

22. A transposable element according to any preceding claim, wherein the element is a class II transposable element.

23. A transposable element according to any preceding claim, wherein the transposase is encoded within the transposon.

24. A method for transforming an organism, comprising exposing replicative tissue of the organism to an element according to any preceding claim under conditions effective to incorporate the element into the genome thereof and, subsequently or simultaneously therewith, providing conditions suitable to excise a transposon from the genome, and selecting an organism, or tissue therefor, comprising the DNA intended for insertion lacking repeats in at least one orientation.

25. A method according to claim 24, wherein the transformant organism is exposed to a source of active transposase.

26. A method according to claim 25, wherein the source of active transposase comprises a helper plasmid or RNA encoding the transposase, or a transposase protein or integrated transposase source.

27. A transformant organism obtained in accordance with any of claims 24-26.

28. A transformant organism according to claim 27, wherein the organism is an insect.

29. A transposable element according to any of claims 10 and 19-20, wherein the marker is a conditional lethal.

30. A transposable element according to any claim 12, wherein the inversion sites are recognised by a directional recombinase, the recombinase-mediated inversion being essentially irreversible.

31. A transposable element according to any claim 30, wherein the inversion site is lox66 or lox71.